

AMENDMENTS TO THE CLAIMS:

Claims 1-112. (Cancelled).

113. **(Currently amended)** An injectable solution for injection into a body cavity comprising a physically cross-linked polymer hydrogel, wherein the solution comprises at least one of salts, alcohols, polyols, amino acids, sugars, proteins, polysaccharides, aqueous solutions thereof, and a mixture thereof, wherein the physically cross-linked polymer hydrogel is formed without chemical crosslinkers, irradiation or thermal cycling, wherein the physically crosslinked polymer hydrogel is formed by controlling the gelation rate by changing Flory Interaction parameter of the solution from a lower to a higher value, and wherein the solution of the polymer hydrogel gels *in situ* after the injection.

114. **(Currently amended)** An injectable solution for injection into a body cavity comprising a physically cross-linked polymer hydrogel, wherein the solution is prepared by mixing at least about 1.0 weight percent polyvinyl alcohol with a solution of about 1.5 to about 6.0 molar sodium chloride, wherein the physically cross-linked polymer hydrogel is formed without chemical cross-linkers, irradiation or thermal cycling, wherein the physically crosslinked polymer hydrogel is formed by controlling the gelation rate by changing Flory Interaction parameter of the solution from a lower to a higher value, thereby forming a physically crosslinked injectable polymer hydrogel solution, and wherein the solution of the polymer hydrogel gels *in situ* after injection.

115. (Previously presented) The injectable solution of claim 114, wherein the physically crosslinked injectable solution comprises about 1.0 to about 50.0 weight percent polyvinyl alcohol.

116. (Previously presented) The injectable solution of claim 114, wherein the vinyl polymer solution contains one or more non-gelling components.

117. (Previously presented) The injectable solution of claim 116 further comprising hyaluronic acid.

118. (Previously presented) The injectable solution of claim 116 further comprising polyacrylic acid.

119. (Previously presented) The injectable solution of claim 116 further comprising a therapeutic agent.

Claims 120-133. (Cancelled).

134. **(New)** The injectable solution of claim 114, wherein the Flory interaction parameter of the solution ranges from 0.25 to 1.0.